

Chicago - 57

SAPC 20918 ✓

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1 November 1957

MEMORANDUM FOR: PROJECT DIRECTOR

SUBJECT : Slipper Tank Installation on U-2 Aircraft

1. It has been determined from recent information from LAC that it is feasible to install slipper tanks in the field. Each detachment has the necessary people and equipment to make the modification, however, this would require the service of one LAC supplied engineer or highly qualified factory mechanic to supervise the operation. The installation requires eight days' shop time at Edwards AFB but at the detachment at least two weeks for each aircraft is necessary. LAC can supply the first tank kit six weeks from start in the shop and can complete delivery of five kits in twelve weeks.

2. It has further been determined that jig drilling of the tanks for interchangeability between aircraft is not feasible at this time as tank attach bolts must pick up existing skin rivet hole patterns which were hand layout at time of wing manufacture. After slipper tanks are once installed on a particular aircraft, it requires only some four hours to detach or reinstall the tanks to the airplane. This feature will lend a great amount of flexibility to the Unit's operational capacity as they can detach or install the tanks to an aircraft as late as receipt of the Mission Plan message.

3. Quoted price for five more sets of tanks would be [] on SP1915 including U-2 modification, installation and flight test at Edwards AFB. If only slipper tank kits are supplied for use in the field the five sets would cost [] and if LAC supplied an engineer to supervise installation on 3-4 sets, the total cost would be []. The above figures are based on clean aircraft only. Installation and treatment of tanks and Phase II for THERMOS would cause some cost increase. U-2 344 is presently equipped with acceptable RAINBOW and will need slipper tanks that have been RAINBOW covered prior to shipment. LAC affirms this is feasible and practicable and that RAINBOW representative at each detachment is capable of adapting the RAINBOW installation to the slipper tanks.

4. Present U-2 and slipper tank placement:

Detachment "B"	Detachment "C"	Edwards AFB
344 - RAINBOW	342 - Clean	343 - Clean
351 - Clean with slipper tanks	350 - Clean	*349 - RAINBOW & slipper tanks
352 - Clean		355 - RAINBOW & slipper tanks
353 - Clean		*350 - RAINBOW & slipper tanks
		360 - Clean

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Edwards AFB (Cont'd)

367 - RAINBOW &
slipper tanks
378 - RAINBOW &
slipper tanks

* When ferry complete

5. Recommendations:

a. That the Project authorize purchase of five additional sets of slipper tanks, making a total of ten sets.

b. That, if above approved, a minimum of two slipper tanks installation be made in the field on the following aircraft per enclosed schedule:

Detachment "B"

344 - Needs RAINBOW tanks

Detachment "C"

358 - Clean tanks

c. That the remaining two sets of tanks be installed at Edwards AFB on the following aircraft per enclosed schedule:

342
352
353

d. That, as a rule, no U-2 aircraft be returned to Edwards AFB for the sole purpose of slipper tank installation.

e. That the enclosed U-2 Flow Chart be approved for planning purposes and adhered to as much as practicable.

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Acting Director of Operations

Encl. (1):
U-2 Flow Chart

APPROVED:


RICHARD W. BISSELL, JR.

PCS/DCI/RHC:asm

Dist.:

0 - addressees

U-2 FLOW CHART

1. This Flow Chart is based on following assumptions:
 - a. Each U-2 will require 15 to 30 days work to complete mods upon arrival EAFB and prior to any other work being done.
 - b. RAINBOW covered aircraft will require 14 days testing after application.
 - c. Each U-2 requires 60 days to complete initial RAINBOW application.
 - d. Each U-2 requires 30 days to reinstall RAINBOW application if base coat is useable.
 - e. Slipper tanks require 14 days to install on U-2 at the detachment and/or 8 days at EAFB.
2. U-2 Assignment 1 May 1958:

<u>Detachment "B"</u>	<u>Detachment "C"</u>	<u>EAFB</u>
344 R & ST	355 R & ST	342 R & ST
349 R & ST	358 ST	343
351 ST	367 R & ST	352
359 R & ST	378 R & ST	353 R & ST
		360

Note that chart requires an exchange of aircraft between Edwards AFB and the detachments on 1 March 1958 and 1 April 1958. This appears to be the minimum amount of ferry flights necessary to accomplish scheduled mods and is well within project capability to accomplish.